Director's Message

The Central National Technology Support Center (CNTSC) has been engaged in a number of technical activities providing direct assistance and support to the States during the past three months.

CNTSC specialists have provided technical training to States such as: "irrigation system planning, design, evaluation, and troubleshooting" training in Louisiana; "WinPond software" training in Colorado; and "stream bank restoration" training in Michigan.

CNTSC specialists have also been collaborating with other National Centers to develop and present course materials via "distance learning" using web-based technology. The Centers are appropriately looking for ways to provide high quality, effective training to the States while, at the same time, reducing travel and other costs for all participants.

As always, the CNTSC appreciate the opportunities to provide training, technology transfer, and direct technical assistance to your State. Please continue to contact us for assistance.

RONALD C. WILLIAMS

Technology Transfer & Training

Field Pumping Plant Training in Louisiana

Jerry Walker, CNTSC Agricultural Engineer, provided irrigation system planning, design, evaluation, and troubleshooting training for NRCS employees in Louisiana. The training included 3 days in the classroom, a 2-day field recon visit to select training and test sites, and two full 5-day weeks conducting training in field pumping plant evaluation and testing.

During the course of the training, 26 pumping plants were tested. This highlighted an immediate and potentially huge impact on energy conservation, and many opportunities for enhanced irrigation water management.

In August, Walker will provide additional training in conducting field furrow and sprinkler irrigation system evaluations. For more information, contact Jerry Walker at jerry.walker@ftw.usda.gov, or call 817-509-3387.

Switchgrass Tech Note to Address Energy Crops

A national technical note entitled "Planting and Managing Switchgrass as a Biomass Energy Crop" was prepared by Joel Douglas, CNTSC Plant Materials Specialist, in cooperation with Plant Materials Center (PMC) specialists in Kansas and New York. The technical note provides guidance to NRCS field staff in the establishment and management of switchgrass as a dedicated energy crop for producers. Information contained in the technical note was assembled from the latest research technology on managing switchgrass for optimum biomass production and feedstock quality, developed by scientists involved in bioenergy production, and technical expertise in establishing switchgrass by the Plant Materials Program specialists. Field selection and preparation, cultivar selection, cultural specifications, fertilizer management, and harvest recommendations will be major discussion topics in the technical note. The information contained in the technical note can be used to guide the development of conservation plans, Field Office Technical Guide (FOTG) data, supplement existing conservation practice standards and resource management systems.

Switchgrass cultivars are being compared to evaluate suitability for biomass energy crops.

For information on the technical note contact Joel Douglas at joel.douglas@ftw.usda.gov, or call 817-509-3419.

Wildlife Team Activities

Assessment of Bird Strike Hazard Posed by Oklahoma WRP Site

The Drummond Flats Basin in north-central Oklahoma is an expansive, low lying area that experiences frequent, shallow inundation in winter and spring. Significant hydrologic modifications begun in the 1930s were largely unsuccessful improving agricultural uses of the Basin, but greatly reduced the quality of wetland habitats. In 2001, NRCS in Oklahoma and its partners (Oklahoma Department of Wildlife Conservation and Ducks Unlimited) began restoring Basin wetlands and associated lowlands through the Wetland Reserve Program (WRP) with the goal of enrolling up to 7,000 acres into protective easements. In 2008, the base commander at nearby Vance Air Force Base expressed concern that waterfowl using Drummond Flats posed increased strike hazard to military aircraft. Oklahoma NRCS requested Matthew Judy's (CNTSC Environmental Specialist) assistance with drafting an environmental assessment for the project. The CNTSC Wildlife Team assisted with this effort which led to the solicitation of a proposal from USDA Animal and Plant Health Inspection Service staff in Oklahoma to quantify risks to military aircraft posed by birds using the partial and fully implemented project. In June 2009, NRCS Headquarters agreed to fund the assessment. The 3-year study will serve as a national model for assessing potential flight hazards at future WRP restorations.

USGS Global Climate Change and Wildlife Science Center Workshop

The CNTSC Wildlife Team participated in the USGS Global Climate Change and Wildlife Science Center Workshop held in Denver, CO, 10-11 June 2009. The meeting was the last of three regional workshops bringing together a broad range of stakeholders (Federal, State, academic, and NGO) who will collaborate directly with the NCCWSC to develop the structures and mechanisms needed to link climate science to wildlife and natural resource management in the U.S. A workshop summary is posted on the NCCWSC website (http://nccw.usgs.gov/documents/NCCWSC_Central_Workshop_Summary.pdf).

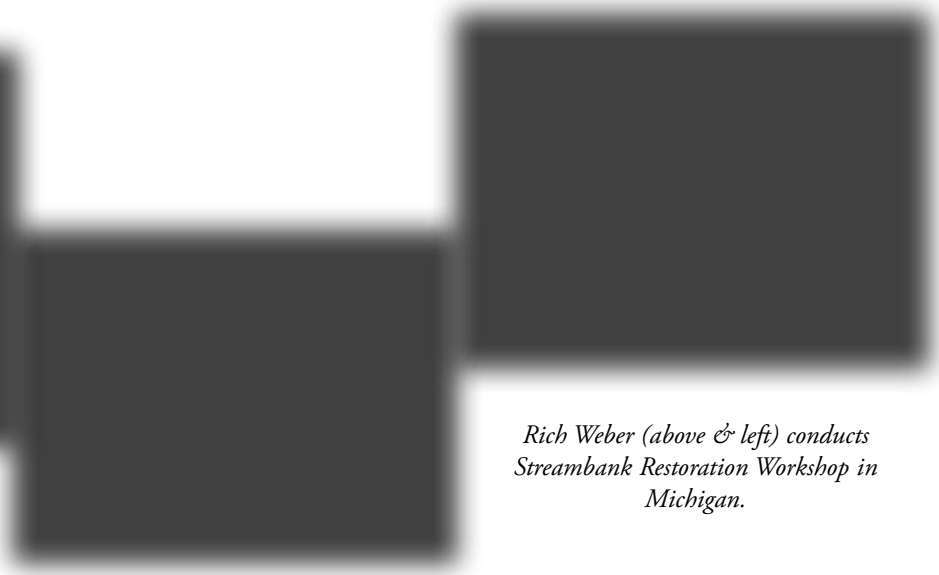
Wetland Team Activities

Rich Weber, CNTSC Wetland Team Hydraulic Engineer, and Romy Myszka, CNTSC Fish and Wildlife Biologist recently provided streambank restoration training for field staff and local partners in Michigan. A two day technical training workshop agenda was developed by the instructors to meet the needs of the participants. Topics covered included National Engineering Handbook 654, Stream Visual Assessment Protocol 2, aquatic organism identification, stream mechanics, wetland/stream interactions, geotechnical bank stability, fish passage issues, and streambank bioengineering.

The material presented was a combination of stream channel bio-engineering, fluvial geomorphology, floodplain dynamics and function, riverine wetland restoration, and the interaction of the biological, hydrologic, and geologic aspects. This workshop is the first to combine these disciplines in a holistic fashion and was designed to train employees in multiple physical and biological assessment techniques and improve service to landowners, with the goal of restoring ecosystem functions. In addition, the use of Web Soil Survey and soils interpretation in the fluvial system landscape was strong component of the training. This effort served as a "pilot" workshop, and the participant responses will be examined in detail for use in designing future workshops.

For additional information, contact Rich Weber at richard.weber@ftw.usda.gov, or call 817-509-3576.

Students (above) collect and evaluate data to identify streambank restoration options during a streambank restoration workshop in Michigan.



Rich Weber (above & left) conducts Streambank Restoration Workshop in Michigan.

Grazing Land Team Activities

Dr. Kenneth Spaeth, CNTSC Rangeland Management Specialist on the Grazing Land Team, provided rangeland and pastureland NRI training to several states. This is the 7th year for rangeland NRI data collection. The pastureland field NRI study has undergone 2 years of pilots, this year, 13 states are collecting data from actual NRI points. Many of the field protocols are the same between range and pasture; however, some are unique to the land use, such as rangeland health and pasture condition scoring.

The rangeland NRI report is in progress and will include information on some key elements: rangeland health assessments (biotic integrity, hydrologic function, soil surface stability), bare ground, canopy gaps, and ubiquitous noxious weeds. The NRI analysis team selected 5 species that are of major concern on rangeland: annual grasses-bromes, medusahead, yellow starthistle and knapweeds, Canadian and other thistles.

The Rangeland Hydrology and Erosion Model (RHEM) now has a user interface that is simple and easy to use. It is undergoing initial testing and will be introduced to specialists for beta testing next fiscal year.

Colorado WinPond Workshop

Tony G. Funderburk, P.E., CNTSC Agricultural Engineer, conducted a WinPond Workshop for 14 Colorado technicians and engineers on June 17-18, 2009. WinPond 2007 is a computer program for the field application of pond designs, intended to assist engineers, conservationists, and engineering technicians in the design of ponds and structures. WinPond assists the user to determine auxiliary spillway and top of dam elevations by floodrouting the principal and auxiliary spillway storm events as defined in NRCS design standards. Up to three principal spillways may be routed and a resulting auxiliary spillway elevation determined for each. A variety of reports may be printed including a construction checkout sheet, conduit details, and a summary sheet. NRCS users may obtain the software through State-level ITS managers.

Tony G. Funderburk, P. E., is the National Technical Contact for the WinPond computer program and can be contacted at 817-509-3289 or tony.funderburk@ftw.usda.gov for assistance or training on WinPond 2007.

Training Provided Using Web-based Technology

Ed Griffin, CNTSC Soil Scientist, and Dwain Daniels, CNTSC GIS Specialist, are subject matter experts for Technical Soil Services and Soil Data Viewer 5.2/ArcGIS 9.2 software. They assisted the National Soil Survey Center (NSSC) and National Employee Development Center (NEDC) to develop course materials for Distance Learning with the Adobe Connect Pro software and are course instructors.

Using web-based technology such as Adobe Connect Pro software to deliver training is gaining in popularity for a number of reasons including cutting cost of travel for agency employees. The Adobe Connect Pro program allows training for more than 25 individuals per session, and offers participation through polls, chats, and break-out rooms for smaller groups.

Griffin and Daniels recently provided training using the web-based software to more than 100 NRCS, Forest Service, Bureau of Land Management, and Bureau of Indian Affairs employees throughout most of the 50 states.

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Central State Resource Conservationists' Workgroup Teleconference

August 4, 2009, 11:00 a.m. CDT

Contact Cheryl Simmons, CNTSC Technology Specialist, at 817-509-3314, or cheryl.simmons@ftw.usda.gov

CNTSC Digital Elevation Data Technical Workshop

August 11-13, 2009
Lincoln, Nebraska

Contact Dwain Daniels, CNTSC GIS Specialist, at 817-509-3358, or dwain.daniels@ftw.usda.gov

Central Environmental Engineers' Teleconference

September 10, 2009, 10:00 a.m. CDT

Contact Cherie LaFleur, CNTSC Environmental Engineer, at 817-509-3303, or cherie.lafleur@ftw.usda.gov

Central State Soil Scientists' Technology Workgroup Teleconference

October 8, 2009, 10:00 a.m. CDT

Contact Edward Griffin, CNTSC Soil Scientist, at 817-509-3304, or edward.l.griffin@ftw.usda.gov